

## Complete Summary

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### GUIDELINE TITLE

Surveillance and management of groups at increased risk of colorectal cancer.

### BIBLIOGRAPHIC SOURCE(S)

New Zealand Guidelines Group (NZGG). Surveillance and management of groups at increased risk of colorectal cancer. Wellington (NZ): New Zealand Guidelines Group (NZGG); 2004 May. 84 p. [222 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

SCOPE  
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## SCOPE

### DISEASE/CONDITION(S)

Colorectal cancer risk factors including:

- Familial adenomatous polyposis
- Hereditary nonpolyposis colorectal cancer
- Hamartomatous polyposis syndromes
- Hyperplastic polyposis syndrome
- Colorectal adenoma
- Inflammatory bowel disease (ulcerative colitis, Crohn's disease)

### GUIDELINE CATEGORY

Management  
Prevention  
Risk Assessment

## CLINICAL SPECIALTY

Colon and Rectal Surgery  
Family Practice  
Gastroenterology  
Internal Medicine  
Medical Genetics  
Oncology  
Pathology  
Preventive Medicine

## INTENDED USERS

Advanced Practice Nurses  
Health Care Providers  
Hospitals  
Nurses  
Physician Assistants  
Physicians  
Public Health Departments

## GUIDELINE OBJECTIVE(S)

- To provide evidence based surveillance recommendations for individuals identified to be at increased risk of developing colorectal cancer
- To facilitate consistency of advice and care for those individuals who are at increased risk of developing colorectal cancer by virtue of their personal history of colorectal disease or family history of colorectal cancer

## TARGET POPULATION

Individuals in New Zealand who may be at increased risk of developing colorectal cancer (CRC), specifically those with a family history of CRC, personal history of CRC, colorectal adenoma, and inflammatory bowel disease

## INTERVENTIONS AND PRACTICES CONSIDERED

### Assessment of Risk

1. Category 1: Individuals with a slight increase in risk of colorectal cancer (CRC).
2. Category 2: Individuals with a moderate increase in risk of CRC.
3. Category 3: Individuals with a potentially high (50%) risk of CRC.

### Prevention/Management

1. Patient education regarding the risk of developing CRC

2. Referral to genetic/bowel specialists as indicated
3. Bowel surveillance
  - Colonoscopy
  - Sigmoidoscopy
  - Gastroduodenoscopy
  - Spigelman Criteria to guide surveillance interval
  - Pancreaticoduodenectomy
4. Surgery
  - Colectomy
  - Colectomy with ileorectal anastomosis
  - Restorative proctectomy procedures
  - Colorectal surgery
5. Surveillance
  - Amsterdam Criteria to determine risk
  - Extracolonic surveillance
  - Annual transvaginal ultrasound (+/- endometrial aspiration biopsy)
6. Referral to familial bowel cancer registries
7. Follow-up

#### MAJOR OUTCOMES CONSIDERED

- Cumulative incidence of colorectal cancer (CRC) in first-degree relatives
- Risk factors for developing CRC
- Risks and benefits of colonoscopic surveillance
- Sensitivity of colonoscopy for the detection of colorectal cancer and colorectal adenomas
- Complication rates of colonoscopy
- Cost-effectiveness
- Efficacy of surveillance colonoscopy in ulcerative colitis

### METHODOLOGY

#### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

#### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

#### NUMBER OF SOURCE DOCUMENTS

Not stated

#### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

#### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

## Evidence-grading Hierarchy

1

Randomised controlled trials

2

Nonrandomised controlled trials

3

Nonrandomised historical cohort studies  
Case-control and other population studies

4

Case series

5

Expert (consensus) opinion

## METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses  
Systematic Review with Evidence Tables

## DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

## DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

A subcommittee of the original National Health Committee working party was constituted in 1999 under the auspices of the New Zealand Guidelines Group (NZGG) to develop a guideline outlining recommendations for the surveillance and management of groups identified to be at increased risk of developing colorectal cancer. The subcommittee comprised medical and surgical specialists, a general practitioner, an epidemiologist, and consumer and Cancer Society of New Zealand Inc. (CSNZ) representatives. The subcommittee met over an 18-month period and used an evidence-based approach to review the relevant literature.

The individual sub-committee members reviewed the evidence using the same evidence grading system as was used in the 1996 working party report. The evidence in each area was then presented, and over several meetings between April 1999 and late 2001 the sub-committee developed the recommendations made in this guideline. Each recommendation represents a consensus decision by the sub-committee. The chapters of the guideline were drafted by individuals and an editor employed to work with the Chairperson to bring the chapters and recommendations into a single document.

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

## COST ANALYSIS

### Flexible Sigmoidoscopy

In a New Zealand study the cost advantage of flexible sigmoidoscopy was largely offset by the cost of follow-up colonoscopy for all subjects with polyps.

### Surveillance

An Israeli study, using a range of costs from the United States (US) and based on the results of a screening programme for families of individuals with colorectal cancer (CRC), indicated that screening asymptomatic adults by colonoscopy is markedly (i.e., 4-fold) more cost-effective if they have two or more first-degree relatives with CRC. There were limitations to this study, with only a small number of participants having more than one first-degree relative with CRC.

The cost-effectiveness of surveillance colonoscopy following a polypectomy has been examined. The authors estimated that in a low-risk group, 1,131 colonoscopies would be performed to prevent one cancer death and concluded that for individuals at low-risk, such as those in whom a single, small adenoma has been detected, the costs of regular surveillance might be excessive. Stratification for colonoscopic follow-up into high- and low-risk groups therefore appears appropriate, in order to minimise unnecessary procedures and risk for individuals, and to reduce costs to the health system of such follow-up.

### Follow Up

Three studies in the USA, Italy, and Germany have examined the costs of follow-up after surgery for CRC. These concluded that the costs are generally high. In addition, the costs of different follow-up programmes varied considerably, a particularly important point in the light of data indicating that the survival advantage gained by a more intensive follow-up approach, compared with a less intensive approach, may not be large. Recommendations were that programmes should be tailored according to stage and site of primary cancer in order to reduce costs, and that controlled economic studies are required.

## METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups  
External Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

### Comparison with Guidelines for Other Groups

In developing these recommendations, consistency with evidence-based guidelines within Australasia was seen as desirable, where possible. In this regard

the value of the resource base provided by the Australian National Health and Medical Research Council (NHMRC) clinical practice guidelines on The Prevention, Early Detection and Management of Colorectal Cancer (1999) and on Familial Aspects of Cancer (2000) in preparing this guideline is acknowledged. In some sections, after reviewing the evidence, the recommendations in the New Zealand guideline mirror those in the Australian guideline.

## External Peer Review

The initial draft document was circulated for expert comment to the appropriate colleges and societies and others in December 2001. This guideline includes revisions made in response to both returned comments and significant medical literature published subsequently. Reviewers were asked to appraise the draft using the Appraisal of Guidelines Research and Evaluation (AGREE) Instrument. Suggestions and comments were incorporated into the final draft.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

Definitions for the Levels of Evidence (1 to 5) are given at the end of the "Major Recommendations" field.

#### Category 1: Individuals with a slight increase in risk of colorectal cancer (CRC) due to family history (up to 2-fold compared with the general population)

- One first degree relative with CRC diagnosed over the age of 55 years

No specific surveillance recommendations are made for this group at this time given the slight increase in risk, the uncertainty regarding the age at which this additional risk is expressed, and the concern regarding the appropriateness of colonoscopy as a surveillance procedure in this group.	5
Prompt investigation of lower bowel symptoms is advised.	5
Individuals requesting information should be fully informed regarding their absolute risk of developing CRC and advised of the reasons for this recommendation.	5

#### Category 2: Individuals with a moderate increase in risk of CRC (3- to 6-fold compared with the general population)

- One first-degree relative with CRC diagnosed under the age of 55 years
- Two first-degree relatives on the same side of the family with CRC diagnosed at any age

Offer colonoscopy every 5 years from the age of 50 years (or from an age 10 years before the earliest age at which CRC was diagnosed in the family,	3
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whichever comes first).	
Fully inform individuals in category 2 about their risk of developing CRC and the reason for this recommendation.	5
Individuals in category 2 should be informed that colonoscopy is generally a safe procedure, but it is an invasive procedure with some rare but recognised risks.	5

### Category 3: Individuals with a potentially high (50%) risk of CRC

- A family history of familial adenomatous polyposis, hereditary nonpolyposis colorectal cancer, or other familial CRC syndromes
- One first-degree relative plus two or more first- or second-degree relatives, all on the same side of the family, with a diagnosis of CRC at any age
- Two first-degree relatives, or one first-degree relative plus one or more second-degree relatives, all on the same side of the family, with a diagnosis of CRC and one such relative (1) was diagnosed with CRC under age of 55 years, (2) developed multiple bowel cancers, or (3) developed an extracolonic tumour suggestive of hereditary nonpolyposis colorectal cancer (i.e., endometrial, ovarian, stomach, small bowel, upper renal tract, pancreas, or brain)
- At least one first- or second-degree family member diagnosed with CRC in association with multiple bowel polyps
- A personal history or one first degree relative with CRC diagnosed under the age of 50, particularly where colorectal tumour immunohistochemistry has revealed loss of protein expression for one of the mismatch repair genes (hMLH1 or hMSH2)

Refer to:	5
<ul style="list-style-type: none"> <li>• A genetic specialist/family cancer clinic or familial bowel cancer registry for further risk assessment and possible genetic testing (for contact details see Appendix B in the original guideline document)</li> <li>• A bowel cancer specialist to plan appropriate surveillance and management</li> </ul>	

### Recommendations: Familial Adenomatous Polyposis

Familial adenomatous polyposis (FAP) is an autosomal-dominant inherited disease characterised by the presence of multiple small adenomas (>100) throughout the colon and rectum. These polyps develop in the early-to-midteens. The median age of diagnosis for CRC in untreated affected individuals is 40 years.

Genetic testing	5
Offer referral to a genetic service for consideration of genetic testing within the context of appropriate counseling to:	

<ul style="list-style-type: none"> <li>• Individuals with a clinical diagnosis of FAP</li> <li>• All at-risk family members if a family-specific genetic mutation has been identified at the age when sigmoidoscopic surveillance would normally begin</li> </ul>	
<p><b>Bowel surveillance</b></p> <p>Sigmoidoscopy 1- to 2-yearly from the age of 12 to 15 years is recommended for asymptomatic individuals with an identified disease-causing FAP mutation and for all at-risk members of families with FAP if genetic testing is not available or is noninformative.</p> <p>Individuals found to have colorectal adenomas should be referred to a bowel cancer specialist.</p> <p>Increase the interval for sigmoidoscopic surveillance to 3-yearly at 35 years if previous examinations have been normal. Consider cessation at 55 years.</p> <p>If attenuated FAP is suspected, colonoscopy is advised. Depending on the family history this may begin as late as 18 years and continue beyond 55 years.</p>	3
<p><b>Prophylactic colectomy</b></p> <p>Prophylactic colectomy comprises total colectomy and ileorectal anastomosis or restorative proctocolectomy procedures. The choice of procedure is influenced by the rectal polyp burden and the individual's preference.</p> <p>Offer to individuals with an established diagnosis of FAP.</p> <p>The timing of surgery is individualised but is usually performed by the late teenage years.</p> <p>Following colectomy and ileorectal anastomosis, annual surveillance of the rectum by sigmoidoscopy with removal and destruction of polyps is advised until restorative proctectomy with ileo-anal pouch construction is performed. This surgery should be considered in all such individuals at age 45 to 50 years because of the increasing risk of rectal cancer.</p> <p>Proctectomy should be performed at an earlier age if polyps are not adequately controlled or CRC develops.</p>	3
<p><b>Surveillance of upper gastrointestinal tract</b></p> <p>There are no published data demonstrating a reduction in mortality from duodenal cancer as a consequence of upper gastrointestinal surveillance.</p> <p>Gastroduodenoscopy to detect duodenal adenomas at 1- to 3-yearly intervals from 30 to 35 years of age is commonly advised, as most advanced duodenal adenomas develop after the age of 40 years.</p>	3



The Spigelman Criteria may be used to guide surveillance interval.	
Pancreaticoduodenectomy should be considered in those with advanced but benign disease (Spigelman Stage IV).	

### Recommendations: Hereditary Nonpolyposis Colorectal Cancer

Hereditary nonpolyposis colorectal cancer (HNPCC) is an autosomal-dominant inherited condition characterized by the development of CRC at a mean age of 45 years, and was previously known as Lynch Syndrome.

Genetic testing	5
Offer referral to a genetic service for consideration of genetic testing, within the context of appropriate counselling, to all at-risk members of families with HNPCC, at the age when colonoscopic surveillance would normally begin.	
Bowel surveillance	3
Colonoscopy is recommended 2-yearly from the age of 25 years (or from an age 5 years before the earliest age at which CRC was diagnosed in the family, whichever comes first). Consider annual colonoscopy in known mutation carriers.	
Surgery	5
Colectomy with ileorectal anastomosis is advised once cancer develops in known mutation carriers or at-risk members of families with HNPCC.	
Annual surveillance sigmoidoscopy of any residual large bowel should be performed.	
Prophylactic surgery	5
Prophylactic subtotal colectomy should be discussed with individuals who are known mutation carriers and have recurrent adenomas with a high degree of dysplasia or a villous growth pattern.	
Prophylactic colorectal surgery in known mutation carriers without any colorectal pathology (i.e., negative colonoscopies) is not indicated because 10 to 20% of such individuals will not develop CRC in their lifetime.	
Consider prophylactic surgery in known mutation carriers who are not willing or are unable to undergo periodic surveillance colonoscopy.	
Extracolonic surveillance	5
Surveillance for at-risk members of families with HNPCC or known mutation carriers takes into account the pattern of cancers occurring in particular families and the gene location of the disease-causing mutation, if known.	

<p>Surveillance for endometrial cancer</p> <p>This is the most common extracolonic malignancy. Surveillance with annual transvaginal ultrasound (+/- endometrial aspiration biopsy) is usually advised for:</p> <ul style="list-style-type: none"> <li>• Known mutation carriers</li> <li>• At-risk members of families with HNPCC as determined by the Amsterdam Criteria if there is a family history of uterine cancer and/or genetic testing is noninformative</li> </ul> <p>The efficacy of these surveillance tools remains uncertain in premenopausal younger women.</p>	
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#### Recommendation: Hamartomatous Polyposis Syndromes

<p>Individuals with hamartomatous polyps of the large or small bowel, or those with a first-degree relative known to have multiple polyps alone or associated with CRC, should be referred to the appropriate bowel and genetic specialists.</p>	5
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#### Recommendation: Hyperplastic Polyposis Syndrome

<p>Individuals identified to have hyperplastic polyps beyond the rectosigmoid junction with risk features should be referred to the appropriate bowel and genetic specialists. Risk features include:</p> <ul style="list-style-type: none"> <li>• Unusual numbers (&gt;20)</li> <li>• Unusual size (<math>\geq 10</math> mm)</li> <li>• Location in the proximal colon</li> <li>• Presence of high-grade dysplasia</li> <li>• Coincidental adenomas</li> <li>• A first-degree relative with high-risk hyperplastic polyps</li> <li>• A first-degree relative with CRC</li> </ul>	5
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#### Recommendations: Familial Bowel Cancer Registries

<p>There is a need for a national registry in New Zealand. Familial bowel cancer registries facilitate:</p> <ul style="list-style-type: none"> <li>• The diagnosis of hereditary CRC</li> <li>• The maintenance of a confidential family database</li> <li>• Coordination of cancer surveillance</li> <li>• Multidisciplinary clinical management</li> <li>• Education for both families and medical practitioners</li> </ul>	5
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Individuals or families with hereditary CRC syndromes should be offered referral to a familial bowel cancer registry as coordination of cancer surveillance by registries in familial colorectal syndromes is associated with a reduction in cancer incidence (see Appendix B in the original guideline document).	3
A working party is advised to review guidelines for the functioning of a national registry, particularly with regard to informed consent and confidentiality of registry information.	5

Recommendations: Individuals with a Personal History of Colorectal Cancer

Follow-up after resection of CRC with curative intent is recommended as it allows practitioners to monitor treatment outcome and is consistent with the preference of individuals with CRC.	5
<p>All such individuals should have specialist follow-up over the time period in which the majority of recurrences (local or metastatic) are most likely to occur (3-5 years).</p> <p>Follow-up should be appropriate to the clinical context. In deciding on intensity and duration of follow-up, age and comorbid conditions should be considered.</p> <p>Follow-up should occur in conjunction with, and subsequently be continued by, the individuals general practitioner.</p>	5
<p>Individuals free of recurrent CRC for 3 to 5 years should be entered into a colonoscopy surveillance program.</p> <p>Colonoscopy should be performed at 3- to 5-yearly intervals.</p>	5
All individuals with CRC should be informed of the uncertain efficacy of follow-up with regard to survival benefit.	5

Recommendations: Individuals with a Personal History of Colorectal Adenoma\*

Factor	Assessed Risk	First surveillance colonoscopy	
Adenoma size $\geq 10$ mm	High: continued surveillance	At 3 years - if negative subsequent colonoscopy at 3-5 years**	3
$\geq 3$ adenomas	High: continued surveillance	At 3 years - if negative subsequent colonoscopy at 3-5 years**	3

Factor	Assessed Risk	First surveillance colonoscopy	
Villous lesions and/or severe dysplasia	High: continued surveillance	At 3 years - if negative subsequent colonoscopy at 3-5 years**	3
Adenomas with no high-risk features and:			
Significant family history of CRC	High: continued surveillance	At 3 years	3
No family history of CRC	Low: consider discontinuing surveillance if subsequent surveillance colonoscopy normal.	At 5-6 years	

\*Presumes complete excision of previous adenomas

\*\*Shorter interval may be appropriate if multiple high-risk features at index procedure

#### Recommendations: Individuals with a Personal History of Inflammatory Bowel Disease

Ulcerative Colitis	
Initial surveillance colonoscopy	3
After 8 to 10 years, individuals with ulcerative colitis (UC) should undergo colonoscopy with serial biopsies (as detailed below) to define disease extent, both macroscopic and microscopic.	
All those with significant disease extending proximal to the sigmoid colon should be enrolled in a surveillance programme.	
Surveillance colonoscopy	3
Colonoscopy is recommended 2-yearly for individuals with UC after 10 years' disease duration. At colonoscopy, 2 to 3 biopsies should be taken from each of 10 sites (caecum, proximal and distal ascending colon, proximal and distal transverse colon, proximal and distal descending colon, proximal and distal sigmoid colon, and rectum).	
Additional biopsies should be taken from any mass lesions, but not from pseudopolyps.	
Individuals with UC should be informed regarding:	

<ul style="list-style-type: none"> <li>• The rationale for surveillance colonoscopy and its limitations in detecting CRC</li> <li>• The failure of studies to establish beyond doubt the value of surveillance in this situation</li> </ul>	
<p>Management of surveillance-detected dysplasia</p> <p>If high-grade dysplasia (HGD) is present on biopsy (and confirmed on histological review), the individual should be referred for colectomy.</p> <p>If low-grade dysplasia (LGD) is found in the absence of significant inflammation:</p> <ul style="list-style-type: none"> <li>• Shorten the surveillance interval to 1 year</li> <li>• Refer for surgical review</li> </ul> <p>If LGD is found in the presence of active inflammation, it is advisable to repeat the colonoscopy after anti-inflammatory therapy. If LGD is confirmed, proceed as outlined for LGD above.</p>	3
Crohn's Disease	
All individuals with extensive colorectal Crohn's disease should undergo surveillance procedures as detailed for individuals with extensive UC.	4

#### Definitions:

##### Levels of Evidence

1

Randomised controlled trials

2

Nonrandomised controlled trials

3

Nonrandomised historical cohort studies

Case-control and other population studies

4

Case series

5

Expert (consensus) opinion

#### CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations" field).

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- Reduced incidence of colorectal cancer (CRC)
- Improved detection of CRC at an early, treatable stage
- Reduced recurrence of CRC
- Improved cost-effectiveness

Subgroups Most Likely to Benefit:

Individuals at high risk of colorectal cancer have the greatest potential to benefit from a surveillance strategy as the benefit-to-risk ratio and cost-effectiveness of surveillance for this group are greater than for screening of individuals at average risk.

### POTENTIAL HARMS

Complications of colonoscopy

Complications may arise as a result of:

- Procedure and interventions performed
- Sedation
- Cardiopulmonary events (particularly in those individuals with preexisting cardiorespiratory disease)

Potential complications of most concern are bleeding and perforation, which can result from the procedure itself or from interventions performed during the procedure, namely polypectomy. Surgery may subsequently be necessary and rarely death may result.

Costs

The costs of follow-up after surgery for colorectal cancer are generally high.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

- Evidence-based guidelines are produced to help health care practitioners and consumers make decisions about health care in specific clinical circumstances.

- Research has shown that if properly developed, communicated, and implemented, guidelines can improve care. While the guideline provides recommendations based on the latest available evidence, it is not intended to replace the health care practitioner's judgment in each individual case.
- This guideline does not address service delivery issues, such as the way in which services should meet the needs of Maori. These areas will be addressed in the guideline update in 2007.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

#### Specific Implementation Strategies

The following strategies have been identified as being essential to achieve the successful implementation of the guidelines. The strategies identified are practical and realistic for the New Zealand setting and are listed in order to promote a systematic and logical approach to the steps required.

#### Endorsement

Endorsement of the guidelines by medical professional organisations is recognized as being an important part of their validation and acceptance by clinicians.

#### Quick Reference Clinical Format

Although the full guideline is needed to demonstrate that all aspects of this subject were adequately researched and referenced, information relevant to decision-making needs to be quickly and easily available to the clinician in the clinical setting. The development and availability of a quick reference summary will make the use of the guideline recommendations easier for clinicians.

#### Publication of the Full Guideline

The full guideline and quick reference guide will be available in electronic form on the New Zealand Guidelines Group (NZGG) Web site at [www.nzgg.org.nz](http://www.nzgg.org.nz). There is no charge for downloading these documents. Print copies will also be available.

#### Consumer Information

A brochure based on this guideline will be developed for people at increased risk of colorectal cancer and their families.

#### Dissemination

Dissemination of the guideline needs to ensure that all interested parties are identified and copies of the guideline are circulated to them.

The summary of the guideline recommendations and details of the Web site for access to the full guideline will be distributed to the following categories of practitioners and organisations:

#### Health Professionals

- General practitioners
- General physicians and surgeons
- Gastroenterologists
- Colorectal surgeons
- Clinical geneticists
- Oncologists
- Pathologists
- Genetic counselors

#### Provider Organisations, Institutions, and Professional Bodies

- Primary Health Organisations
- Independent Practitioner Associations
- District Health Boards
- Academic lecturers/curriculum planners involved in medical training
- Medical colleges/professional bodies

#### Agencies and Community Organisations

- The Cancer Society of New Zealand Inc. (CSNZ)
- Health insurers (e.g., Southern Cross)
- Support groups for individuals with colorectal cancer (CRC)
- Consumer interest groups
- Community health agencies and interest groups

#### Events, Presentation, and Training

Education and formal presentations regarding the content, recommendations, and rationale, as well as the use and applicability of the guideline, are a critical part of the implementation strategy.

They will need to occur at a number of levels and will be ideally facilitated nationally and locally by members of the subcommittee.

The following approaches should be used:

#### National Level

- Formal endorsement and presentations at appropriate general practitioner/specialty and subspecialty conferences
- Organizing information and education seminars/workshops (based on the guideline) for practitioners, Primary Health Organisations, Independent Practitioner Associations, and District Health Boards
- Specific educational initiatives for particular groups (e.g., general practitioners)



- Efforts made to ensure all sessions include the discussion of how information for consumers about screening/surveillance for CRC is appropriately dealt with to avoid overstating the risk and to minimize consumer demand for inappropriate screening
- Training provided for any areas of practice where shortcomings related to the guideline recommendations are identified
- A resource for consumers should be developed to reflect the recommendations in this guideline

#### Local Level

- Planned regional education sessions for relevant medical specialties
- Providing sessions for the discussion of prioritizing colonoscopic services for each region with the aim of updating local referral guidelines to reflect the evidence-based guideline recommendations
- Interactive regional and hospital continuing medical education (CME) sessions
- Educational Independent Practitioner Association outreach activities

#### Publicity

This approach will need to be handled with care because currently, after review of the evidence, population-based CRC screening is not advised in New Zealand for individuals at average risk of developing CRC. Informing the public will require considerable clarity to highlight the factors associated with a moderate increase in risk for developing CRC without encouraging those at average risk to seek out CRC screening tests.

#### Journals and Other Publications for Health Professionals

- Medical journal articles
- Nursing journal articles
- GP Weekly
- Doctor newspaper
- CSNZ Cancer Update in Practice Bulletin

#### Launch of Guideline Combined with an Introductory Seminar

- Informing the public
- Consumer information leaflet: develop appropriate consumer information leaflet in association with the Cancer Society of New Zealand (CSNZ)
- Use of lay media to publish articles on CRC that clarify who is at moderate to high risk of developing CRC and who should/should not be referred for surveillance
- Radio interviews: the purpose of this guideline is to clarify who is at high risk of developing CRC so that surveillance activities will be strictly limited to this select group. Radio interviews will need to be carefully considered to ensure they convey the right message and do not serve to generate increased interest and expectations with regard to screening for CRC among those not at high risk

#### Access to Colonoscopy Services

It will be necessary to negotiate specific funding for the staff, clinic time, and equipment needed to enable the provision of colonoscopy services for asymptomatic individuals identified as having a significant increase in risk of developing CRC, within an appropriate timeframe. It is essential that this be organized in a manner that will not adversely impact on those requiring colonoscopic investigation for symptoms. This matter will need to be discussed at both the national (Ministry of Health) and regional (District Health Board) levels.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

New Zealand Guidelines Group (NZGG). Surveillance and management of groups at increased risk of colorectal cancer. Wellington (NZ): New Zealand Guidelines Group (NZGG); 2004 May. 84 p. [222 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2004 May

### GUIDELINE DEVELOPER(S)

New Zealand Guidelines Group - Private Nonprofit Organization

### SOURCE(S) OF FUNDING

New Zealand Guidelines Group

### GUIDELINE COMMITTEE

Not stated

### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Guideline Subcommittee Members: Susan Parry (Chair) Gastroenterologist, Middlemore Hospital and University of Auckland, Clinical Advisor Familial Bowel Cancer Registry, Genetic Services, Auckland City Hospital, Auckland; Philip Bagshaw, Surgeon, Christchurch School of Medicine and Health Sciences, University of Otago, Christchurch; Vint Chadwick, Gastroenterologist, Wakefield Gastroenterology Centre, Wellington; Andrew Connolly, Colorectal Surgeon, Middlemore Hospital, Auckland; Betsy Marshall, Health Promotion Policy Advisor, Cancer Society of New Zealand Inc., Auckland; John McMenamin, General Practitioner, Wanganui; Ann Richardson, Epidemiologist, Christchurch School of Medicine and Health Sciences, University of Otago, Christchurch; Judi Strid, Consumer Representative, Women's Health Action, Auckland

Members of the 1998 Working Party: Susan Parry (Chair) Gastroenterologist, Middlemore Hospital and University of Auckland, Clinical Advisor Familial Bowel Cancer Registry, Genetic Services, Auckland City Hospital, Auckland; Robin Griffiths (Secretary) Senior Medical Advisor, National Health Committee, Wellington; Philip Bagshaw, Surgeon, Christchurch School of Medicine and Health Sciences, University of Otago, Christchurch; Vint Chadwick, Gastroenterologist, Wakefield Gastroenterology, Wellington; Chris Cunningham, Director, Health Research, School of Maori Studies, Massey University, Palmerston North; Terri Green, Health Economist, Department of Management, University of Canterbury, Christchurch; Stuart Heap, Radiologist, Faculty of Medical and Health Sciences, University of Auckland, Auckland; Betsy Marshall, Health Promotion Policy Advisor, Cancer Society of New Zealand Inc., Auckland; John McCall, Surgeon, Faculty of Medical and Health Sciences, University of Auckland, Auckland; John McMenamin, General Practitioner, Wanganui; Ann Richardson, Epidemiologist, Christchurch School of Medicine and Health Sciences, University of Otago, Christchurch; Judi Strid, Consumer Representative, Women's Health Action, Auckland; Clint Teague, Pathologist, Medical Laboratory, Wellington

#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

There were no competing interests declared for this guideline.

#### ENDORSER(S)

College of Nurses Aotearoa NZ - Academic Institution  
New Zealand Nurses Organization - Professional Association  
New Zealand Society of Gastroenterology - Medical Specialty Society  
Royal Australasian College of Physicians - Professional Association  
Royal Australian and New Zealand College of Radiologists - Professional Association  
Royal College of Pathologists of Australasia  
Royal New Zealand College of General Practitioners - Medical Specialty Society

#### GUIDELINE STATUS

This is the current release of the guideline.

#### GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [New Zealand Guidelines Group Web site](#).

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#### AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- New Zealand Guidelines Group (NZGG). Guideline summary. Wellington (NZ): New Zealand Guidelines Group (NZGG); 2004 May. 6 p.

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#### PATIENT RESOURCES

None available

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